Report No. 5.—The Manufacture of Woollen Cloth.

Very early in the century an attempt was made to manufacture cloth from wool grown in the Colony, first under Governmental auspices in the reformatory at Parramatta, and afterwards by Mr. John Lord in his mill at Botany. The amount of capital invested was but small, and the machinery of a very primitive description, but Mr. Lord's effort was attended with success sufficient to induce him to import new and improved machinery from Leeds. In 1830 Mr. Robert Cooper erected a much more complete and expensive plant at Blackwattle Swamp, but his investment proved unprofitable, and the industry was brought to a standstill, until in 1838 Mr. Cooper brought out from the West of England a number of weavers under a sort of co-operative agreement to make broadcloth at 6s. 6d. per yard, Mr. Cooper providing machinery and materials. This arrangement proved a temporary success, and the cloth manufactured brought from 10s. to 14s. per yard, but the hands quarrelled among themselves, the carding machines were damaged, and work was suspended. After a time the plant was removed to Stockton, where a losing struggle was carried on, till in 1857 the mill and machinery were destroyed by fire. Messrs. Raynor in 1838 started the Lachlan Mills near Randwick and afterwards removed to Emu Plains, where the industry was carried on from 1849 to 1870, when operations were suspended and finally abandoned. Other attempts have been made with tolerable success at Parramatta, Camden, Bowenfells, Clyde, and Sydney. The mills at Bowenfells and Camden have recently been reorganised and started afresh, and with those of Parramatta, Clyde, and Sydney, are now in full operation.

Hands Employed.

During the past ten years the number of mills in operation has varied from 9 to 4, and the number of operatives from 385 to 155. In 4 of the 5 mills now in operation there are 145 hands, consisting of 75 males and 70 females. The following table shows the fluctuations in the number of mills and employees, and also in the output, from 1880 to 1890 inclusive :—

Year.	Mills.	Hands employed.			Output.
		Male.	Female.	Total.	
1880	8	114	100	214	353,100 yards.
1881	5	178	157	335	358,000 ,,
1882	8	266	119	385	319,225 ,,
1883	9	260	112	372	352,000 ,,
1884	7	175	137	312	305,000 ,,
1885	6	189	134	323	337,750 ,,
1886	8	104	78	182	324,788 ,,
1887	5	101	71	172	348,000 ,,
1888	5	117	60	177	241,000 ,,
1889	5	110	62	172	207,500 ,,
1890	4	94	61	155	310,000 ,,

Division of Labour.

Instead of having a great many different grades of operatives, as in the woollen mills of Great Britain and America, the industry has hitherto been attempted in this Colony on a scale so small that it employs only some five or six grades, consisting of carders and spinners, weavers, pickers and winders, washers, sorters and dyers, and finishers. Some of these perform the functions of two grades, and it may naturally be supposed are less effective in both than operatives who confine their attention to one function only.

Hours of Labour.

The hours of labour observed are from 6·30 a.m. to 5 p.m. on five days, and to 12·15 p.m. on Saturdays, with the usual intervals for meals, making in all 54 working hours per week. At the present time all hands are fully employed, and in one mill are working overtime to fulfil outstanding orders.

Wages.

Weavers, who are mostly women, are generally paid by the piece, the usual price being from 3½d. to 6d. a yard, or an equivalent rate "by the warp." At these prices men can earn an average weekly wage of about 40s. and women about 25s. The other grades are on weekly wages, and are paid according to the following scale :—

Grades.	Carders and Spinners.	Pickers and Winders.	Washers.	Sorters and Dyers.	Finishers.	Weavers.
Men	30/- to 70/-	.....	35/- to 45/-	.....	30/- to 42/-	30/- to 50/-
Boys	8/- to 14/-	.....	11/- to 20/-	.....	11/- to 15/-	15/- to 20/-
Women	.....	15/- to 20/-	.....	16/-	.....	17/- to 30/-
Girls	8/- to 14/-	8/- to 13/-	.....	.....	.....	.....

The Mills and Machinery.

Out of the five mills now in operation four were formerly used as flour-mills, and are neither so convenient nor so well adapted for their present use as might be desired. Those with upper floors cause needless labour, and entail a considerable loss of time and expense in conveyance of materials to different parts of the mill. The only building designed and erected especially for a woollen mill has not been in operation for the past five years.

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The machinery in use is of all classes and by different makers, and, generally speaking, obsolete, some of the looms working at little more than half the speed of modern looms, and utterly incapable of turning out high class cloth. Carding, weaving, warping, dyeing, and finishing, are operations requiring great care and skill, in order that the product when finished may not be deficient of any essential characteristic. None of these operations can be satisfactorily performed with the antiquated machinery in use at present, and the consequence is that the mills can only turn out an inferior class of cloth, at a low price, to compete against the imported article. In the attempt to manufacture goods of a higher class the faults of the machinery in use and other attendant circumstances involve so much needless expense that only failure has hitherto been met with. The total capacity of all the mills now in work is not equal to that of one fifth class English mill, a fact which points to the necessity of concentrating efforts to establish the industry on a firm footing, for it is useless trying to earn a fair return with insufficient capital and inadequate machinery. Even the largest of the mills achieves too small an output to afford a profit at all commensurate with the capital invested, and a glance at the following table will show the exceedingly small, almost insignificant, capacity of the various mills at work during 1890 :—

Mills.	Hands.	Cards.	Looms.	Spindles.	Picks per Minute.	Annual Output.
1	72	4	26	1,800	45 to 54	150,000 yards
2	34	3	14	1,200	50	90,000 ,,
3	14	1	8	600	50	20,000 ,,
4	25	1	8	800	60	75,000 ,,

With a gross possible output of 335,000 yards per annum the profit to be divided among these four mills would be so small a return for the capital invested that the proprietors could have but slight inducement to continue, were it not that the mills are worked in conjunction with clothing factories, enabling them to reap a second and perhaps more satisfactory return from the cloth manufactured in the mills.